

WEBINAR

Fire Protection for Lithium - Ion Battery Storage System

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MECHANICAL ENGINEERING TECHNICAL DIVISION, IEM

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SPEAKER:
MR. ASHWIT DIAS



ENERGY STORAGE

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REGISTRATION FEES:
IEM Members: RM15
Non-IEM Members: RM70

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SYNOPSIS

Since their market launch in the early 1990s, lithium-ion batteries have found their way into a wide variety of applications. The transition to renewable energy and decentralization of generation in the last few years, have necessitated the use of Energy Storage Systems (ESS). In parallel electric vehicles have also gained in prominence, which often also use Lithium Ion based power sources as also do several other consumer applications. These trends have led to exponential growth in Lithium ion battery production. Driven by this growth in demand, prices for Lithium batteries have dropped exponentially in the last few years and we now increasingly find them in a wider variety of industrial applications - from Energy Storage Systems to UPS rooms to Data Centers. However the industry standards to protect such industrial applications have not kept up with this growth. Lithium Ion fires are increasingly making the news. Just in July 2021, there were multiple fires in the US, Germany and Australia involving ESS applications. The challenge to the industry comes from a phenomenon called thermal runaway, where once initiated, the fire spread to adjacent cells resulting in a cascading series of fires and potentially explosions. Lithium ion batteries combine high energy materials with highly flammable electrolytes most often in conjunction with high power systems. Traditional fire detection methods do not provide early warning, nor are the standard applications of fire extinguishing suitable to suppress Lithium Ion fires. The webinar will focus on building an understanding of the risks involved with Lithium Ion batteries, the detection techniques that can be used and protection strategies to employ to address installations with Lithium Ion batteries.

SPEAKER'S PROFILE

Mr. Ashwit Dias hold a degree in Mechanical Engineering and an MBA from INSEAD Business School. He began his career as an R&D Engineer with General Electric. He holds several international patents to his name and is also a Six Sigma Black Belt. Over the last 10 years, he has been with Siemens, and has worked with a wide range of engineering businesses ranging from Wind Energy to Transmission to Building Products. Particularly over the last 5 years he has been actively involved with the Siemens Fire Safety business in ASEAN, India and Korea.